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# FACSIMILE COVER SHEET

Deliver to: Daborah Chacko Davis, USPTO
Art Group: 1756
Facsimile No.: (571) 273-8300
Date: August 6, 2008
From: Brent E. Vecchia, Reg. No. 48,011
Our Docket No.: 42P17301
Number of pages 15 including this sheet.
Application No.: 10/687,288
Filing Date: 10/15/2003
Docket Due Date(s): 8/11/2008

Enclosed are the following documents:

| | |
|---|---|
| ☐ Amendment: ( pgs) | ☐ Issue Fee Transmittal |
| ☐ Appeal Brief ( pgs) | ☐ Notice of Appeal (in duplicate) |
| ☐ Application: | ☐ Petition for: |
| ( pgs) w/cover & abstract) | ☐ Request for Continued Examination (RCE) (in duplicate) |
| ☐ Assignment & Cover Sheet ( pgs) | ☐ Reply Brief ( pgs) |
| ☒ Certificate of Facsimile | ☐ Request & Certification Under 35 USC 122(b)(2)(B)(i) |
| ☐ Continued Prosecution Application (CPA) | ☐ Request to Rescind Previous Nonpublication Request |
| ☐ Declaration & POA ( pgs) | ☐ Response to Notice of Missing Parts & Formalities Letter |
| ☐ Drawings: sheets, figures | ☐ Response to Written Opinion ( pgs) |
| ☐ Extension of Time: | ☐ Terminal Disclaimer |
| ☒ Fee Transmittal (in duplicate) | ☐ Transmittal of Publication Fee Due |
| ☐ IDS & PTO/SB/08 ( pgs) | ☒ Transmittal Letter |
| ☒ Other -Response to Examiner's Answer before the Board of Patent Appeals and Interferences 11 page | |

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Shannon Serrano 8/6/2008
*Shannon Serrano* *Date*

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# TRANSMITTAL FORM

*(to be used for all correspondence after initial filing)*

| | |
|---|---|
| Total Number of Pages in This Submission | 15 |

| | |
|---|---|
| Application No. | 10/687,288 |
| Filing Date | October 15, 2003 |
| First Named Inventor | Wang Yueh |
| Art Unit | 1756 |
| Examiner Name | Daborah Chacko Davis |
| Attorney Docket Number | 42P17301 |

**ENCLOSURES** ***(check all that apply)***

- [x] Fee Transmittal Form
  - [ ] Fee Attached
- [ ] Amendment / Reply
  - [ ] After Final
  - [ ] Affidavits/declaration(s)
- [ ] Extension of Time Request
- [ ] Express Abandonment Request
- [ ] Information Disclosure Statement
  - [ ] PTO/SB/08
- [ ] Certified Copy of Priority Document(s)
- [ ] Response to Missing Parts/ Incomplete Application
  - [ ] Basic Filing Fee
  - [ ] Declaration/POA
- [ ] Response to Missing Parts under 37 CFR 1.52 or 1.53
- [ ] Drawing(s)
- [ ] Licensing-related Papers
- [ ] Petition
- [ ] Petition to Convert a Provisional Application
- [ ] Power of Attorney, Revocation Change of Correspondence Address
- [ ] Terminal Disclaimer
- [ ] Request for Refund
- [ ] CD, Number of CD(s)
  - [ ] Landscape Table on CD
- [ ] After Allowance Communication to TC
- [x] Appeal Communication to Board of Appeals and Interferences
- [ ] Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)
- [ ] Proprietary Information
- [ ] Status Letter
- [x] Other Enclosure(s) *(please identify below):*
  - -Facsimile Coversheet

Remarks

**SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT**

| | |
|---|---|
| Firm or Individual name | Brent E. Vecchia, Reg. No. 48,011<br>BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP |
| Signature | Brent E. Vecchia |
| Date | August 6, 2008 |

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| Typed or printed name | Shannon Serrano | | |
| Signature | Shannon Serrano | Date | August 6, 2008 |

Based on PTO/SB/21 (10-07) as modified by Blakely, Sokoloff, Taylor & Zafman (wlr) 10/05/2007.
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# FEE TRANSMITTAL for FY 2007

*Patent fees are subject to annual revision*

☐ Applicant claims small entity status See 37 CFR 1.27.

TOTAL AMOUNT OF PAYMENT ($)

| Complete if Known | |
|---|---|
| Application Number | 10/687,288 |
| Filing Date | October 15, 2003 |
| First Named Inventor | Wang Yueh |
| Examiner Name | Daborah Chacko Davis |
| Art Unit | 1756 |
| Attorney Docket No. | 42P17301 |

**METHOD OF PAYMENT** *(check all that apply)*

☐ Check ☐ Credit card ☐ Money Order ☒ None ☐ Other (please identify): _____

☒ Deposit Account Deposit Account Number: 02-2666 Deposit Account Name: Blakely, Sokoloff, Taylor & Zafman LLP

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, except for the filing fee

☒ Charge any additional fee(s) or underpayment of fee(s) under 37 CFR §§ 1.16, 1.17, 1.18 and 1.20. ☒ Credit any overpayments

**FEE CALCULATION**

| Large Entity Fee Code | Large Entity Fee ($) | Small Entity Fee Code | Small Entity Fee ($) | Fee Description | Fee Paid |
|---|---|---|---|---|---|
| 1051 | 130 | 2051 | 65 | Surcharge - late filing fee or oath | |
| 1052 | 50 | 2052 | 25 | Surcharge - late provisional filing fee or cover sheet. | |
| 2053 | 130 | 2053 | 130 | Non-English specification | |
| 1251 | 120 | 2251 | 60 | Extension for reply within first month | |
| 1252 | 460 | 2252 | 230 | Extension for reply within second month | |
| 1253 | 1,050 | 2253 | 525 | Extension for reply within third month | |
| 1254 | 1,640 | 2254 | 820 | Extension for reply within fourth month | |
| 1255 | 2,230 | 2255 | 1,115 | Extension for reply within fifth month | |
| 1401 | 510 | 2401 | 255 | Notice of Appeal | |
| 1402 | 510 | 2402 | 255 | Filing a brief in support of an appeal | |
| 1403 | 1,030 | 2403 | 515 | Request for oral hearing | |
| 1451 | 1,510 | 2451 | 1,510 | Petition to institute a public use proceeding | |
| 1460 | 130 | 2460 | 130 | Petitions to the Commissioner | |
| 1807 | 50 | 1807 | 50 | Processing fee under 37 CFR 1.17(q) | |
| 1806 | 180 | 1806 | 180 | Submission of Information Disclosure Stmt | |
| 1809 | 810 | 1809 | 405 | Filing a submission after final rejection (37 CFR § 1.129(a)) | |
| 1810 | 810 | 2810 | 405 | For each additional invention to be examined (37 CFR § 1.129(b)) | |

Other fee (specify)

SUBTOTAL (2) ($)

**SUBMITTED BY** Complete (if applicable)

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|---|---|---|---|---|---|
| Signature | Brent E. Vecchia | | | Date | 08/06/08 |

Based on PTO/SB/17 (12-04) as modified by Blakely, Sokoloff, Taylor & Zafman (wlr) 12/15/2004
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# FEE TRANSMITTAL for FY 2007

*Patent fees are subject to annual revision.*

☐ Applicant claims small entity status. See 37 CFR 1.27.

TOTAL AMOUNT OF PAYMENT ($)

| Complete if Known | |
|---|---|
| Application Number | 10/687,288 |
| Filing Date | October 15, 2003 |
| First Named Inventor | Wang Yueh |
| Examiner Name | Daborah Chacko Davis |
| Art Unit | 1756 |
| Attorney Docket No. | 42P17301 |

**METHOD OF PAYMENT** *(check all that apply)*

☐ Check ☐ Credit card ☐ Money Order ☒ None ☐ Other (please identify): _____

☒ Deposit Account Deposit Account Number: 02-2666 Deposit Account Name: Blakely, Sokoloff, Taylor & Zafman LLP

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, except for the filing fee

☒ Charge any additional fee(s) or underpayment of fee(s) under 37 CFR §§ 1.16, 1.17, 1.18 and 1.20. ☒ Credit any overpayments

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| 1401 | 510 | 2401 | 255 | Notice of Appeal | |
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| 1403 | 1,030 | 2403 | 515 | Request for oral hearing | |
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| 1809 | 810 | 1809 | 405 | Filing a submission after final rejection (37 CFR § 1.129(a)) | |
| 1810 | 810 | 2810 | 405 | For each additional invention to be examined (37 CFR § 1.129(b)) | |
| Other fee (specify) | | | | | |
| | | | | SUBTOTAL (2) | ($) |

**SUBMITTED BY** Complete (if applicable)

| | | | | | |
|---|---|---|---|---|---|
| Name (Print/Type) | Brent E. Vecchia | Registration No. (Attorney/Agent) | 48,011 | Telephone | (408) 720-8300 |
| Signature | Brent E. Vecchia | | | Date | 08/06/08 |

Based on PTO/SB/17 (12-04) as modified by Blakely, Sokoloff, Taylor & Zafman (wlr) 12/15/2004
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

| | | | |
|---|---|---|---|
| Application. No. | : 10/687,288 | Confirmation No. | : 7538 |
| 1st Named Inventor | : Wang Yueh | Art Unit | : 1756 |
| Filed | : 10/15/2003 | Examiner | : Daborah Chacko Davis |
| Docket No. | : 42P17301 | Customer No. | : 8791 |

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Alexandria, VA 22313-1450

RESPONSE TO EXAMINER'S ANSWER
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Sir:

This is a Response to the Examiner's Answer mailed in the above-captioned case on 6/11/2008. The fees required and any required petition for extension of time for filing this brief and fees therefor, are dealt with in the accompanying Transmittal. Appellants respectfully request consideration of this appeal by the Board of Patent Appeals and Interferences for allowance of the above-captioned patent application.

An oral hearing is not desired.

## I. ARGUMENT (37 C.F.R. § 41.37(c)(1)(vii))

### A. REJECTION OF CLAIM 27 UNDER 35 U.S.C. § 112, FIRST PARAGRAPH, AS ALLEGEDLY FAILING TO COMPLY WITH THE WRITTEN DESCRIPTION REQUIREMENT IS BELIEVED TO BE IMPROPER.

**GROUP I: CLAIM 27**

Claim 27 recites "*wherein the non-chemically amplified photoresist layer does not include a photo-acid generator (PAG)*". The Examiner has asserted that "*there is no disclosure in the specification teaching that the non-chemically amplified generator does not include a photo acid generator (PAG)*". See e.g., page 2 of the Final Office Action mailed 9/27/06.

Appellants respectfully disagree. Paragraph [0005] discloses that "*For chemically amplified photoresists, the mechanism is different. **Instead of PAC, Photoacid generator (PAG) is used** (emphasis added). ... The disadvantage of this approach is that during the post-exposure bake process, the acid produced by the exposure of the photoacid generator (PAG) will diffuse into the film. The diffusion is non-uniform and produces a situation where the polymer lacks sufficient randomness to deblock, which exacerbates the **LWR problem** (emphasis added) for all wavelengths.*" Paragraph [0029] discloses that "***Embodiments of the invention provide a non-chemically amplified photoresist (i.e., does not include PAG) (emphasis added), which results in reduced LWR***".

In the Appeal Brief, Applicants mistakenly attributed the quote above for paragraph [0029] to paragraph [0031].

In addition, the Examiner has asserted that a photoactive compound is a photoacid generator. Applicants respectfully disagree. Photoactive compounds (PACs) used for non-chemically amplified photoresists are understood by those skilled in the art to be different compounds than photoacid generators (PAGs) used for chemically amplified resists. The patent application

appropriately uses these different terms to refer to these different compounds. Accordingly, those skilled in the art and having the benefit of the present disclosure would understand that these terms refer to different compounds. The Examiner has not provided any evidence that a compound known as a photoactive compound (PAC) for a non-chemically amplified photoresist is also known as a photoacid generator (PAG) for a chemically amplified resist.

Accordingly, Appellants respectfully submit that there is sufficient written description for claim 27, and respectfully request that the rejection of claim 27 be overturned.

## B. REJECTION OF CLAIMS 21-25 AND 30-34 UNDER 35 U.S.C. § 103(A) AS ALLEGEDLY BEING UNPATENTABLE OVER U.S. PATENT NO. 5,759,739 TO TAKEMURA ET AL. (HEREINAFTER TAKEMURA) IN VIEW OF U.S. PATENT APPLICATION PUBLICATION NO. 2005/0074699 BY SUN ET AL. (HEREINAFTER SUN) IS BELIEVED TO BE IMPROPER

**GROUP II: CLAIMS 21-25 AND 30-34**

The Examiner has rejected claims 21-25 and 30-34 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,759,739 to Takemura et al. (hereinafter Takemura) in view of U.S. Patent Application Publication No. 2005/0074699 by Sun et al. (hereinafter Sun). Appellants respectfully submit that claims 21-25 and 30-34 are allowable over Takemura and Sun.

Claim 21 recites a method comprising:

"*depositing a layer on a substrate;*

*depositing* ***a non-chemically amplified photoresist layer*** *upon the layer, the non-chemically amplified photoresist layer having a* ***developer-soluble resin*** *and a* ***photoactive compound****, the photoactive compound inhibiting solubility of the developer-soluble resin;*

*exposing selected portions of the non-chemically amplified photoresist layer to an* ***extreme ultra-violet light source*** *such that solubility of the selected portions of the non-chemically amplified photoresist layer is promoted; and*

*developing the exposed portions of the non-chemically amplified photoresist layer*".

Accordingly, claim 21 pertains to a method of using a **non-chemically amplified photoresist layer** that includes **a developer-soluble resin** and **a photoactive compound** that inhibits the solubility of the developer-soluble resin. Furthermore, the method includes exposing selected portions of the non-chemically amplified photoresist layer to an **extreme ultra-violet light source.**

(1) Firstly, on page 3 of the Final Office Action mailed 6/28/07, the Examiner has admitted that "*Takemura does not disclose that the photoresist layer is non-chemically amplified*". The Examiner again admitted this on pages 12-13 of the Examiner's answer. However, claim 21 specifically recites "*a non-chemically amplified photoresist layer*". Non-chemically amplified photoresist mechanisms are well known in the arts and are known to be different than chemically amplified photoresist mechanisms like those discussed in Takemura.

The Examiner has used Takemura to reject the claimed developer-soluble resin and the claimed photoactive compound. Applicants respectfully submit that Takemura does not disclose the claimed developer soluble resin or the claimed photoactive compound that inhibits the solubility of the developer-soluble resin. Paragraph [0005] of the present patent application discloses that "*For chemically amplified photoresists, the mechanism is different. Instead of PAC, Photoacid generator (PAG) is used. The resin (PHOST) in the photoresists are not soluble (emphasis added) in developer.*" Accordingly, in chemically amplified systems the resin is typically **not considered to be developer soluble** until after exposure because of the protective groups. Takemura discusses chemically amplified resists. In the Examiner's Answer, the Examiner has not indicated precisely where she believes Takemura discloses that the resists are developer soluble. Claim 21 makes it clear that the deposited layer has a **developer-soluble**

resin. Additionally, Takemura discusses photoactive generators (PAGs) but doesn't disclose photoactive compounds (PACs). As understood by Applicants, PAGs are understood in the art to be different than PACs. Still further, claim 21 recites "*the photoactive compound inhibiting solubility of the developer-soluble resin*". In the Examiner's Answer, the Examiner has not indicated precisely where she believes Takemura discloses that the photoactive generators discussed in Takemura inhibit solubility of the developer-soluble resin. The section referred to by the Examiner refers to a "dissolution inhibitor", but this does not appear to be the separately mentioned "photoacid generator". Accordingly, the Examiner's assertion on the top of page 13 of the Examiner's Answer that "*Takemura teaches a resist layer has the same components as that of the resist layer recited in claim 21*" is clearly not true.

Accordingly, some of the chemical components in Takemura may at first glance seem similar to the claimed components, but they are **different**. The differences between these components is due, at least in part, to the fact that **Takemura does not disclose non-chemically amplified photoresists.**

Furthermore, the Examiner has admitted on page 13 of the Examiner's Answer that "*Sun is not depended upon to disclose the claimed composition of a non-chemically amplified layer*". Accordingly, Applicants respectfully submit that the Examiner has not properly established where the claimed non-chemically amplified layer is disclosed in the cited references.

The Examiner has asserted that "*Sun, in [0039], discloses that the chemically amplified photoresist layer can be replaced with a non-chemically amplified photoresist layer*". See e.g., the bottom of page 3 of the Final Office Action mailed 6/28/07.

Paragraph [0039] of Sun recites:

> [0039] The thin photoresist provides a number of important advantages to the photolithographic process. First, there are no outstanding photoresist patterns in the entire process. Dry etch masking is no longer required for the photoresist, making the photoresist more of a photosensitive layer rather than a photoresist. Second, the photoresist layer is so thin that transparency becomes less of a problem. Third, due to the extraordinarily thin photoresist, this invention opens an opportunity to replace the ever troubling chemically amplified photoresist with non-chemically amplified photoresists for the photolithography process of KrF or shorter wavelengths. Fourth, chances for the protective layer and photoresist patterns to collapse are significantly reduced, if not completely eliminated, due to the low aspect ratios and the excellent adhesion of the protective layers to substrates. Fifth, the thinness of the photoresist will inevitably improve the pattern resolution. Sixth, the exposure focus offset has less impact on a thin photoresist than on a thick one. Critical dimension (CD) variation of the protective layer patterns due to different DOF is less significant due to the thin photoresist.

The Examiner appears to have relied upon the statement in paragraph [0039] that "*this invention opens an opportunity to replace the ever troubling chemically amplified photoresist with non-chemically amplified photoresists for the photolithography process of KrF or shorter wave-lengths*". However, the section of Sun relied upon does not disclose that a non-chemically amplified photoresist in general be useful for **extreme ultra-violet (EUV)** lithography, but only for "*KrF or shorter wave-lengths*". KrF lithography uses a deep ultra-violet (DUV) wavelength of about 248 nm. Applicants respectfully submit that it is inappropriate to extrapolate the statement in Sun all the way down from 248nm KrF to EUV. This statement might possible encompass other DUV wavelengths (e.g., 193nm). However, Applicants respectfully submit that this statement should not be construed to encompass the next-generation EUV lithography which uses a much smaller wavelength of about 13nm. Furthermore, materials suitable for DUV lithography commonly are not suitable for EUV lithography. Accordingly, the statement in Sun should not be construed to mean that non-chemically amplified photoresists in general are suitable for EUV.

Accordingly, neither Sun nor Takemura discloses or renders obvious a method of using a **non-chemically amplified** photoresist layer that includes a **developer-soluble resin** and a **photoactive compound that inhibits the solubility of the developer-soluble resin** and that includes exposing selected portions of the non-chemically amplified photoresist layer to an **extreme ultra-violet** light source.

(2) Secondly, Takemura should not be combined with Sun since Takemura pertains to chemically amplified photoresist layers and Sun pertains to non-chemically amplified photoresist layers. The Examiner has argued on page 14 of the Examiner's Answer that Sun teaches the interchangeability of chemically amplified resist with a non-chemically amplified resist. However, Applicants respectfully submit that this, without more, is insufficient to suggest that teachings (e.g., of the components and wavelengths) for chemically amplified resists be combined with teachings for non-chemically amplified resists.

Accordingly, for at least one or more of these reasons, claim 21 and its dependent claims are believed to be allowable over Takemura and Sun.

Independent claim 30 and its dependent claims are believed to be allowable for one or more similar reasons.

For at least these reasons, the claims of Group II (claims 21-25 and 30-34) are believed allowable over Takemura and Sun.

### C. REJECTION OF CLAIMS 21, 26, 30 AND 35 UNDER 35 U.S.C. § 103(A) AS ALLEGEDLY BEING UNPATENTABLE OVER U.S. PATENT NO. 5,358,599 TO CATHEY ET AL. (HEREINAFTER CATHEY) IN VIEW OF U.S. PATENT APPLICATION PUBLICATION NO. 2005/0074699 BY SUN ET AL. (HEREINAFTER SUN) IS BELIEVED TO BE IMPROPER

**GROUP III: CLAIMS 21, 26, 30 AND 35**

Claim 21 recites a method comprising:

"*depositing a layer on a substrate;*

*depositing* ***a non-chemically amplified photoresist layer*** *upon the layer, the non-chemically amplified photoresist layer having a* ***developer-soluble resin*** *and a* ***photoactive compound****, the photoactive compound inhibiting solubility of the developer-soluble resin;*

*exposing selected portions of the non-chemically amplified photoresist layer to an* ***extreme ultra-violet light source*** *such that solubility of the selected portions of the non-chemically amplified photoresist layer is promoted; and*

*developing the exposed portions of the non-chemically amplified photoresist layer*".

(1) Firstly, on page 4 of the Final Office Action mailed 6/28/07, the Examiner has admitted that "*Cathey does not disclose that the photoresist layer is non-chemically amplified*". However, claim 21 specifically recites "*a non-chemically amplified photoresist layer*".

The Examiner has used Cathey to reject the claimed photoactive compound that **inhibits the solubility of the developer-soluble resin**. Applicants respectfully submit that the Examiner has not precisely pointed out where she believes that Cathey discloses the claimed photoactive compound that **inhibits the solubility of the developer-soluble resin**. Applicants have carefully reviewed the section of Cathey cited by the Examiner in the Examiner's Answer and find no disclosure of the claimed photoactive compound that **inhibits the solubility of the developer-soluble resin**. Additionally, Cathey discusses photoactive generators (PAGs) but doesn't appear to disclose photoactive compounds (PACs). As understood by Applicants, PAGs are understood in the art to be different than PACs.

Accordingly, Cathey does not disclose either the claimed **non-chemically amplified resist**, or the claimed **photoactive compound** that **inhibits the solubility of the developer-soluble resin**.

However, the Examiner has asserted that "*Sun, in [0039], discloses that the chemically amplified photoresist layer can be replaced with a non-chemically amplified photoresist layer*". See e.g., the top of page 5 of the Final Office Action mailed 6/28/07.

As discussed above, Appellants submit that paragraph [0039] of Sun does not disclose that a non-chemically amplified photoresist be suitable for **extreme ultra-violet (EUV)** lithography. EUV lithography is a next generation lithography using a much smaller wavelength than KrF lithography. Applicants respectfully submit that it is inappropriate to extrapolate the statement in Sun all the way down from KrF to EUV.

Accordingly, neither Sun nor Cathey discloses or renders obvious a method of using a **non-chemically amplified** photoresist layer that includes a developer-soluble resin and a photoactive compound that inhibits the solubility of the developer-soluble resin and that includes exposing selected portions of the non-chemically amplified photoresist layer to an **extreme ultra-violet** light source.

(2) Secondly, Cathey should not be combined with Sun since Cathey pertains to chemically amplified photoresist layers and Sun pertains to non-chemically amplified photoresist layers. The interchangeability mentioned in Sun is insufficient to suggest that teachings (e.g., of the components and wavelengths) for chemically amplified resists be combined with teachings for non-chemically amplified resists.

Accordingly, for at least one or more of these reasons, claim 21 and its dependent claims are believed to be allowable over Cathey and Sun.

Independent claim 30 and its dependent claims are believed to be allowable for one or more similar reasons.

For at least these reasons, the claims of Group III (claims 21, 26, 30 and 35) are believed allowable over Cathey and Sun.

**D. REJECTION OF CLAIMS 27-29 ARE REJECTED UNDER 35 U.S.C. § 103(A) AS BEING UNPATENTABLE OVER U.S. PATENT NO. 5,358,599 TO CATHEY ET AL. (HEREINAFTER CATHEY) IN VIEW OF U.S. PATENT APPLICATION PUBLICATION NO. 2005/0074699 BY SUN ET AL.**

**(HEREINAFTER SUN) AS APPLIED TO CLAIMS 21, 26, 30, AND 35 ABOVE, AND FURTHER IN VIEW OF U.S. PATENT APPLICATION PUBLICATION NO. 2004/0204328 BY ZHANG ET AL. (HEREINAFTER ZHANG), AND U.S. PATENT NO. 6,261,738 TO ASAKURA ET AL. (HEREINAFTER ASAKURA) IS BELIEVED TO BE IMPROPER**

**GROUP IV: CLAIMS 27-29**

Appellants respectfully submit that claims 27-29 depend from claim 21. As discussed above, claim 21 is believed to be allowable over Cathey and Sun. As understood by Appellants, Zhang and Asakura do not remedy what is missing from Cathey and Sun. In particular, Zhang and Asakura do not disclose or render obvious a method of using a **non-chemically amplified** photoresist layer that includes a developer-soluble resin and a photoactive compound that inhibits the solubility of the developer-soluble resin and that includes exposing selected portions of the non-chemically amplified photoresist layer to an **extreme ultra-violet** light source. Furthermore, the Examiner has not relied upon these references to disclose these limitations.

Accordingly, claims 27-29 are believed to be allowable over these cited references for at least this reason.

## CONCLUSION

Based on the foregoing, Appellants request that the Board overturn the rejection of all pending claims and hold that all of the claims of the present application are allowable.

Appellants respectfully petition for an extension of time to respond to the outstanding Office Action pursuant to 37 C.F.R. § 1.136(a) should one be necessary. Please charge our Deposit Account No. 02-2666 to cover the necessary fee under 37 C.F.R. § 1.17 for such an extension.

Please charge any shortages and credit any overpayment to our Deposit Account No. 02-2666.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Dated: August 6, 2008

By Brent E. Vecchia

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